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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

JONES, HEATHER RAE

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/901,069	Applicant(s) KIM, KYUNG WOOK	
	Examiner HEATHER R. JONES	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,10 and 11 is/are rejected.
- 7) ☒ Claim(s) 3,4,7 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2001 and 28 October 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5, 6, 8, 10, and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Utsugi (U.S. Patent 5,177,730).

Regarding claim **1**, Utsugi discloses an apparatus to control an inclined angle of an AV front panel with respect to an AV rear panel by means for converting a driving force of an incline angle controlling motor into a linear movement, comprising: an inclining unit to transfer a rotational force to the AV front panel to incline the AV front panel (Figs. 7 and 9(a)-9(c)); a rotation transmitting unit to transfer a rotational force of a motor to the inclining unit to incline the AV front panel (Figs. 7 and 9(a)-9(c)); and an opening and closing unit

Art Unit: 2621

to couple with the inclining unit to open and close the AV front panel in response to a combination of the transferred rotational force of the rotation transmitting unit and the linear movement of the converting means (Figs. 9(a)-9(c) – as can be seen from these figures the rotation force of the gears are transmitted to the linear movement of the linear member (66) in order to open and close the AV front panel).

Regarding claim **2**, Utsugi discloses all the limitations as previously discussed with respect to claim 1 including that the rotation transmitting unit comprises: a worm (81) fixed to the motor (80) by a shaft, such that the motor (80) rotates the worm (81) to open and close the front panel (7), by rotating in first and second directions, respectively; a worm gear (79) engaged with the worm (81) and having a concentric sub-gear (77) integrally formed thereat; and a gear (76) engaged with the worm gear (79) through a pulley system).

Regarding claim **5**, Utsugi discloses an apparatus to control a movement of an AV front panel with respect to a stationary AV rear panel, comprising: an arm link rotatably fixed to the AV front panel at a first end thereof to direct the movement of the AV front panel along a predetermined trajectory and to slide along a fixed axis and rotate thereabout at a second end thereof (Figs. 7 and 9(a)-9(c)); an inclining unit to control a rotation of the arm link (Figs. 7 and 9(a)-9(c)); a transmitting unit to transmit a first rotational force to the inclining unit

(Figs. 7 and 9(a)-9(c)); and a converting unit to control an angle of inclination of the AV front panel (Figs. 7 and 9(a)-9(c)).

Regarding claim **6**, Utsugi discloses all the limitations as previously discussed with respect to claim 5 including that the transmitting unit comprises: a rotating gear (76) to rotate in a first rotational direction to cause the inclining unit to couple to the arm link such that the arm link rotates along the fixed axis in the first rotational direction (Figs. 9(a)-9(c) – as can be seen from these Figs. The arm link opens AV front panel).

Regarding claim **8**, Utsugi discloses all the limitations as previously discussed with respect to claim 5 including that the stationary AV rear panel comprises a trajectory hole formed along the predetermined trajectory at a side portion thereof (the trajectory hole can be seen in Figs 9(a)-9(c) in the component labeled "75"); and the arm link comprises a trajectory pin to move within the trajectory hole to direct the movement of the arm link and the AV front panel (the pin can also be seen shown in the trajectory hole in Figs 9(a)-9(c) in the component labeled "75").

Regarding claim **10**, Utsugi discloses all the limitations as previously discussed with respect to claim 5 including that the converting unit comprises: a slide plate to linearly reciprocate along a horizontal axis to control the angle of inclination of the AV front panel (Figs. 9(a)-9(c) – arm link (66) and slide plate (75)); a plurality of gears to control the reciprocating movement of the slide plate (Figs. 9(a)-9(c) – gears (76), (79), and (77)); and a motor (80) to transfer a

Art Unit: 2621

second rotational force to the plurality of gears (Figs. 9(a)-9(c) – gears (76), (79), and (77)).

Regarding claim **11**, Utsugi discloses all the limitations as previously discussed with respect to claim 5 including that the horizontal axis of the slide plate is perpendicular to the AV front panel in a closed position and parallel to the AV front panel in an open position (Fig. 9(a) – the slide plate (75) is perpendicular to the AV front panel (7) when the AV front panel is in a closed position).

Allowable Subject Matter

4. Claims 3, 4, 7, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to teach or fairly suggest an apparatus to control an included angle of an AV front panel with respect to an AV rear panel by means for converting a driving force of an incline angle controlling motor into a linear movement, comprising:

- a. Wherein the inclining unit comprises a sector gear engaged with the gear of the rotation transmitting unit and having a protrusion at its side (claim 3, which depends from claims 1 and 2).
- b. Wherein: the opening and closing unit comprises an arm link, comprising: a guide hole with an opening at a first end thereof, a long hole to receive a shaft

Art Unit: 2621

of the gear of the rotation transmitting unit therein such that the arm link is rotatable about the shaft and slidable on the shaft, and a pin hingedly connected to an upper part of the front panel; and the AV rear panel comprises an upright trajectory hole having an opening at its lower end such that the pin of the arm link enters the opening and slides along the upright trajectory hole (claim 4, which depends from claims 1 and 2).

c. Wherein: the inclining unit comprises a rotatable sector gear with a protrusion at a periphery thereof; and the arm link comprises a protrusion guide to engage with the protrusion at a predetermined rotational junction of the sector gear and the arm link in order to continue the rotation of the arm link in the first rotational direction (claim 7, which depends from claims 5 and 6).

d. Wherein the trajectory pin disengages from the trajectory hole at a predetermined point to allow the AV front panel to move to a position parallel to the stationary AV rear panel (claim 9, depends from claims 5 and 8).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2621

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2621

HRJ
January 17, 2009

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621